

## FEU 10 – Ammunition Reference Collection and Standards

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### 1. Scope

- 1.1 This Standard Operating Procedure (SOP) provides the steps required to use and maintain the Ammunition Reference Collection and Standard Ammunition File.

### 2. Background

- 2.1 The FEU maintains reference materials for use in training and case work applications; these reference materials include, but are not limited to, the Ammunition Reference Collection, and the Standard Ammunition File.
- 2.2 By developing this SOP the FEU will have a standard approach to control the ammunition reference collection and standards, and comply with the Department of Forensic Sciences Quality Assurance Program, ISO/IEC 17025:2017 and Supplemental Requirements.

### 3. Safety

- 3.1 Access to the reference materials is restricted for safety and security purposes.

### 4. Materials Required

- 4.1 Not applicable

### 5. Standards and Controls

- 5.1 Any non-FEU member must be escorted by an FEU member with access to the reference materials and standards.
- 5.2 All exhibits in the Standard Ammunition File are uniquely identified and catalogued in and inventory database on the network folder; exhibits in the Ammunition Reference Collection are consumable, and are uniquely identified via marking/etching when used as secondary evidence in test fires.

## 6. Calibration

- 6.1 Not applicable

## 7. Procedures

- 7.1 Using ammunition from the Ammunition Reference Collection
  - 7.1.1 When ammunition is to be used in case work, the box will be removed from the storage shelf (general shelving) to the case work shelf, and recorded on the FEU-LOG-04 Ammunition Sign-out Log.
  - 7.1.2 Once recorded, the box may be used either partially or entirely, depending on the needs of the examination. If used partially, the box will be returned to the case work shelf; if the entire box is empty or used, the box should be discarded.
- 7.2 Adding new ammunition to the Ammunition Reference Collection
  - 7.2.1 The FEU Ammunition Inventory spreadsheet is updated with any new ammunition that is added to the Collection. This spreadsheet is saved on the network drive.
  - 7.2.2 The following information will be completed on the spreadsheet:
    - 7.2.2.1 Item #
    - 7.2.2.2 Manufacturer
    - 7.2.2.3 Caliber
    - 7.2.2.4 Description
    - 7.2.2.5 Weight
    - 7.2.2.6 Location
    - 7.2.2.7 Unit and Quantity
- 7.3 Front Desk Test Fire Ammunition
  - 7.3.1 The FEU Ammunition Inventory spreadsheet is updated with ammunition that is moved from the storage shelf (general shelving) to the Front Desk Test Fire Ammunition located in the Safe by the Front Desk Area.

- 7.4 Using an exhibit from the Standard Ammunition File
  - 7.4.1 Any exhibits used to inform case work must be documented in the examination notes by exhibit number. This may include comparisons of weight, design, and other features of the ammunition and photographs may be included in the case file.
- 7.5 Adding an exhibit to the Standard Ammunition File
  - 7.5.1 If possible, obtain two of the selected cartridges for exhibit:
    - 7.5.1.1 Locate the next numerical exhibit tray; this number will become the exhibit specimen number.
    - 7.5.1.2 Photograph one of the cartridges and store it in the tray whole.
    - 7.5.1.3 Disassemble the other cartridge, using designated containers for powder and other small components; photograph the disassembled cartridge with all components, and store it in the tray.
    - 7.5.1.4 Scribe the exhibit tray number on the cartridge, cartridge case, and projectile (if possible), and label any small component containers with the exhibit tray number.
  - 7.5.2 Within the Firearms Reference Database (located on the Firearms network drive):
    - 7.5.2.1 Select Add New Record from the menu at the top.
    - 7.5.2.2 Record the exhibit specimen number, and any relevant data regarding the caliber, weight, bullet type, cartridge description, manufacturer, etc. to include photographs of the cartridge whole and disassembled.
- 7.6 The COOP Location Ammunition Collection Inventory referenced in the FEU Ammunition Inventory spreadsheet is located off site.

## **8. Sampling**

- 8.1 Not Applicable

## **9. Calculation**

- 9.1 Not Applicable

## **10. Uncertainty of Measurement**

- 10.1 Not Applicable

## **11. Limitations**

- 11.1 Not all ammunition encountered in case work may be found in the Ammunition Reference Collection and Standard Ammunition File. When desired ammunition is unavailable, analysts may use discretion in choosing “like ammunition” for examinations.

## **12. Documentation**

- 12.1 FEU Ammunition Sign-out Log (FEU-LOG-04)  
12.2 FEU Ammunition Inventory Spreadsheet

## **13. Reference**

- 13.1 ISO/IEC 17025:2017 – General Requirements for the Competence of Testing and Calibration Laboratories, International Organization for Standardization, Geneva, Switzerland.  
13.2 ANAB Supplemental Requirements for Forensic Testing, ANSI-ASQ National Accreditation Board, Milwaukee, WI, (Current Version).  
13.3 FSL Quality Assurance Manual (Current Version).